

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) An electronic energy meter that senses input voltage and current signals and processes the input voltage and current signals to generate measurements of multiple types of power comprising:

a processing system for selecting one of said multiple types of power and defining the same as the selected type of power and for generating a pulsed test signal representative of a magnitude of a measurement of said selected type of power for testing the operation of the meter; and

an optical communications port coupled to the processing system for transmitting the pulsed test signal from the meter and being operational to receive signals from sources external to the meter whereby pulsed test signals for multiple, different types of power can be transmitted over said optical communications port.

2. (Original) The meter of claim 1, wherein the multiple types of power include real power, reactive power, and apparent power and wherein the processing system selects one of the various types of power by selecting between real power, reactive power, and apparent power.

3. (Original) The meter of claim 2, wherein the processing system selects additional types of power and generates additional pulsed test signals, each of the additional pulsed test signals being related to one of the additional selected types of power and wherein the optical communications port transmits each additional pulsed test signal from the meter.

4. (Original) The meter of claim 1, wherein said multiple types of power are indicative of one of total power, power received, and power delivered and wherein the processing system selects one of the multiple types of power by selecting between total power, power received and power delivered.

5. (Original) The meter of claim 4, wherein the processing system selects additional types of power and generates additional pulsed test signals, each of the additional pulsed test signals being related to one of the additional selected types of power and wherein the optical communications port transmits each additional pulsed test signal from the meter.

6. (Original) The meter of claim 1, wherein the pulsed test signal has a pulse rate substantially equal to the K_h value.

7. (Original) The meter of claim 1, wherein the pulsed test signal has a pulse rate substantially equal to a K_e value.

8. (Original) The meter of claim 1, wherein the processing system selects one of the K_h value or a K_e value as the pulse rate of the pulsed test signal to be transmitted.

9. (Original) The meter of claim 1, wherein the optical communications port is operative to receive a communications command from at least one source external to the meter and wherein the processing means selects the type of power based on information provided by the communications command.

10. (Original) The meter of claim 1, wherein the optical communications port receives communications while transmitting the pulsed test signal and transmits communications and the pulsed test signal, one-at-a-time, over the optical communications port.

Claims 11-16 (Withdrawn).